the opposite corpus restiforme in the cerebellum. The inner division of the inferior peduncle is independent of the corpus restiforme, and is made up chiefly of fibres from the nucleus cuneatus of the same side. It also receives some fibres from the formatio reticularis. It ends in the ganglion tecti and possibly decussates within the cerebellum. The superior cerebellar peduncle arises from all parts of the cerebellar cortex but not from the vermiform lobe. It ends in the red nucleus of the opposite side. middle peduncle of the cerebellum does not contain any commissural fibres between the cerebellar hemispheres. It arises from all parts of the cerebellum. It passes to the gray masses in the ventrad half of the pons, each hemisphere being joined with both halves of the pons. A part only of the fibres, therefore, cross the median line. The fibres end in the gray masses of the pons. There is no direct connection between the cerebellum and cerebrum. All the fibres from one end in nuclei, whence new fibres leave to pass to the other. These way stations are the gray masses of the pons and the red nucleus of the tegmentum.

The results of the author are compared with those of other observers in the original article, which is to be found in the Arch.

für Psychiatrie, xvi., p. 200.

THE DESTINATION OF THE POSTERIOR COLUMNS OF THE CORD. —Edinger has investigated the course of the fibres from the posterior columns of the spinal cord upward into the medulla oblongata in fœtuses at the eighth month. At that time these fibres are medullated, while the fibres from the olivary bodies are still without sheaths; hence the two sets can be distinguished from each other. He finds that the fibres from the columns of Burdach and Goll take two courses. The greater number pass ventrad of the central canal and cross to the opposite side to form the interolivary tract. This decussation, known as the sensory, to distinguish it from the pyramidal or motor, continues higher than is usually described, the last fibres to cross passing from the termination of the posterior columns as high as the middle of the vagus nucleus. These upper fibres form a portion of the fibræ arcuatæ internæ which go through the formatio reticularis. They pass through the olivary body of the side from which they come, but do not enter into any relation with it. The olivary body is not The smaller number of connected with the posterior columns. fibres turn directly outward from the termination of the posterior columns and enter the restiforme body, and thus go to the cerebellum. They come exclusively from the column of Goll. They pass to the vermiform lobe of the cerebellum, being joined on their way by fibres which arise in the acoustic and trigeminal nuclei, and by the direct cerebellar column of the cord. fibres which come from the opposite olivary body into the corpus restiforme pass to the hemispheres of the cerebellum and not to the vermiform lobe.—Neurolog. centralbl., Feb. 15, 1885.

It is evident that Edinger makes no distinction between the corpus restiforme and the inferior peduncle of the cerebellum. Vejas, in the article just cited, considers the two as distinct. The corpus restiforme forms the lateral part of the tract passing from the medulla to the cerebellum; the inferior peduncle its mesal part. This nomenclature is unfortunate, as the entire tract should be included in the term inferior peduncle, and then two divisions of the peduncle may be described.

THE PYRAMIDAL TRACT AND THE LEMNISCUS.—Monakow reported at the January meeting of the Neurological Society of Berlin (Neurologisches Centralbl., Feb, 1, 1885) some interesting observations upon the pyramidal tract and lemniscus. He had extirpated the right parietal lobe with the pyramidal termination in the cortex, in a cat. Six months after he found a total atrophy of the entire right pyramidal tract downward to the motor decussation, through which it could be followed to and along the pyramidal column of the spinal cord. In the anterior horn of the cord no change was found, although it is in the cells of this horn that the pyramidal fibres have been supposed to end. Monakow noticed, however, a decided atrophy of the cells in the processus reticularis throughout the cervical region. He therefore concludes that these cells are the terminal stations of the pyramidal fibres, and that from them arise new fibres which pass into the anterior

In the same animal he found a descending degeneration of the lemniscus from the parietal cortex downward through the division of the internal capsule, which lay near the middle of the thalamus, through the tegmentum and pons into the interolivary tract, and thence through the sensory decussation to the funiculus gracilis of the opposite side. This corresponds in part to the descending degeneration which was traced in Spitzka's case of pons lesion, although, as Monakow shows, the degeneration was somewhat less extensive in the cat.

When this result is compared with that of Vejas just recorded, and with the observations of Flechsig as detailed in his Plan des menschlichen Gehirns, it becomes evident that in the lemniscus there are fibres which degenerate both upward and downward. It follows, therefore, either that the lemniscus has a double function and conveys both centripetal and centrifugal impulses, or that the conclusion that tracts degenerate only in the direction in which they convey impulses is untrue.

A NEW LATERAL FASCICULUS IN THE SPINAL CORD.—At the meeting of the Psychiatrical Society of St. Petersburg, Dec. 10, 1884, (reported in the *Centralbl. f. Nervenheilkunde*, Feb. 15, 1885), Bechterew demonstrated a bundle of fibres lying in the anterior part of the lateral column of the spinal cord, between the anterior border of the direct cerebellar column and the exit of the motor